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March 15, 2010

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Application No. : **2,442,496**
Owner : MENDEL BIOTECHNOLOGY, INC.
Title : **METHOD FOR MODIFYING PLANT BIOMASS**
Classification : C12N 15/29 (2006.01)
Your File No. : **V81138CA**
Examiner : Sudeep Acharya

YOU ARE HEREBY NOTIFIED OF A REQUISITION BY THE EXAMINER IN ACCORDANCE WITH SUBSECTION 30(2) OF THE *PATENT RULES*. IN ORDER TO AVOID ABANDONMENT UNDER PARAGRAPH 73(1)(a) OF THE *PATENT ACT*, A WRITTEN REPLY MUST BE RECEIVED WITHIN 6 MONTHS AFTER THE ABOVE DATE.

This application has been examined taking into account the:

Description,	pages 1-123, as originally filed;
Sequence listing,	pages 124-136, as received on February 17, 2004 during the national phase;
Claims,	1-12, as received on August 8, 2007 during the national phase; and
Drawings,	pages 1/3-3/3, as originally filed.

This application has been examined taking into account applicant's correspondence on prior art received in this office on October 10, 2007.

The number of claims in this application is 12.

A search of the prior art has revealed the following:

Reference Applied:

EMBL Database
AL022604 ▢

Created: April 22, 1998

Bevan et al.

▢ citation stemming from a foreign search report



Bevan et al. disclose a BAC clone comprising a nucleotide sequence that is approximately 99% identical to sequence ID number 1 and encodes a protein which is 100% identical to sequence ID number 2 of the instant application.

The examiner has identified the following defects in the application:

Claims 8-12 do not comply with section 28.3 of the *Patent Act*. The subject matter of these claims would have been obvious on the claim date to a person skilled in the art or science to which it pertains having regard to Bevan et al. and common general knowledge. Bevan et al. disclose a BAC clone comprising a nucleotide sequence wherein the nucleotide sequence obtained from *Arabidopsis thaliana* DNA chromosome 4 is approximately 99% identical to sequence ID number 1 and encodes a protein which is 100% identical to sequence ID number 2 of the instant application. This differs from the subject matter of claims 8-12 because the prior art does not teach a plant cell transformed with said sequence or expressing said protein recombinantly. However, routine recombinant plant molecular technology cannot be considered inventive to a person skilled in the art. As such, no inventive step is required to obtain a plant cell comprising a nucleotide sequence previously disclosed by Bevan et al. In light of this, the subject matter of claims 8-12 cannot be considered to involve inventive ingenuity.

Claims 1-4 and 6 are directed to multi-cellular life forms, and are outside the definition of invention in section 2 of the *Patent Act*. (See *Harvard College v. Canada (Commissioner of Patents)*, (2002) S.C.C. 76, or (2002) 21 C.P.R. (4th) 417).

Claims 1, 5, 7 and 8 are indefinite and do not comply with subsection 27(4) of the *Patent Act*. A sequence that is fully complementary to the nucleotide sequence encoding a polypeptide comprising SEQ ID NO:2 and a sequence that is fully complementary to the nucleotide sequence comprising SEQ ID NO:1 will either not encode a functional protein, or will encode a protein having a function unrelated to the protein encoded by the nucleotide sequence set forth in sequence ID number 1.

Claims 3, 5-7, 10 and 12 are indefinite and do not comply with subsection 27(4) of the *Patent Act*. A nucleotide sequence hybridizing to a coding sequence will either not encode a functional protein, or will encode a protein having a function unrelated to the protein encoded by the nucleotide sequence set forth in sequence ID number 1. In order to encode a protein having the same function as that of sequence ID number 1, the nucleotide sequence must be defined as hybridizing to the complement of the sequence set forth in sequence ID number 1.

The description contains a statement that incorporates by reference another document and does not comply with subsection 81(1) of the *Patent Rules*. Such a statement is found at page 5, line 9; page 39, line 3 and page 50, line 5 and should be removed.

The description refers to a document not available to the public and does not comply with subsection 81(2) of the *Patent Rules*. The http internet address provided on page 40, line 22 defines a non-permanent electronic file and as such does not constitute a permanently retrievable non-patent document.

In view of the foregoing defects, the applicant is requisitioned, under subsection 30(2) of the *Patent Rules*, to amend the application in order to comply with the *Patent Act* and the *Patent Rules* or to provide arguments as to why the application does comply.

Under section 34 of the *Patent Rules*, any amendment made in response to this requisition must be accompanied by a statement explaining the nature thereof, and how it corrects each of the above identified defects.

Sudeep Acharya
Patent Examiner
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